

Appl. No. 10/736,501

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CENTRAL FAX CENTER****NOV 06 2006****REMARKS/ARGUMENTS****Claim Rejections – 35 USC 112**

The Examiner rejects claim 6 contending that it is unclear as to which receivers are being scheduled. Claim 6 as amended recites “wherein scheduling transmission to the receivers further comprises scheduling the high priority receivers before scheduling the low priority receivers”. Therefore, claim 6 as amended defines that the high priority receivers are scheduled before the low priority receivers.

The Examiner rejects claim 17 contending that this claim is indefinite as it is dependent on cancelled claim 2. Claim 17 as amended depends upon claim 5.

Claim Rejections – 35 USC 103

The Examiner rejects claims 5-7, 11, 13-15, 17, 20-22, 24, 26, 28 and 31 under 35 USC 103(a) as being unpatentable over United States Patent No. 6,330,460 (“Wong”) in view of United States Patent No. 6,895,258 (“Scherzer”). In response, Applicant respectfully traverses the Examiner’s rejections for reasons detailed below.

Claim 5

The Examiner concedes that Wong does not disclose determining a receiver which has a largest angle of separation with previously scheduled receivers. However, the Examiner contends that Scherzer discloses this subject matter in column 6, line 65 to column 7, line 5. Applicant respectfully disagrees with the Examiner, as Scherzer does not teach or suggest this subject matter.

Applicant appreciates that Scherzer teaches in column 6, line 65 to column 7, line 5 that transmission scheduling is utilized to improve forward link performance and that service may be scheduled based on channel loss conditions and/or based on spatial conditions. Scherzer provides an example in that if a subscriber system is “relatively isolated in angle”, it may be more frequently serviced, thereby increasing system throughput. The Examiner appears to

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believe that this suggests scheduling based on a largest angle of separation with previously scheduled receivers. However, by referring to a subscriber system being "relatively isolated in angle", Scherzer is not actually teaching scheduling based on a largest angle of separation with previously scheduled receivers. Applicant submits that scheduling transmission to receivers that are "relatively isolated in angle" is possible without the scheduling being based on a largest angle of separation with previously scheduled receivers.

Furthermore, the approach in Scherzer is to determine appropriate beam widths for transmission— see for example column 8, lines 33-43. Scherzer is concerned with determining an appropriate beam width which results in negligible intra-cell interference. While the receivers being "relatively isolated in angle" help to ensure negligible intra-cell interference, the focus in Scherzer is to determine beam widths. Applicant submits that this is completely different from scheduling receivers based on a largest angle of separation of previously scheduled receivers. There is no suggestion that the scheduling is performed based on a largest angle of separation with previously scheduled receivers.

In view of the foregoing, Applicant submits that claim 5 of the present application is novel and inventive over Wong and Scherzer.

Applicant submits that the remaining claims are patentable over Wong and Scherzer for similar reasons provided above in respect of independent claim 5. Furthermore, Applicant submits that the remaining claims define additional features not found in the prior art of record. Examples are provided below.

Claims 6 and 7

Claims 6 and 7 relate to scheduling receivers based on priority. The Examiner refers to column 4, line 56 to column 5, line 30 of Wong. However, this portion of Wong relates to scheduling based on aggregate data throughput. There is no reference to logically dividing users into two groups, and scheduling the higher priority group first, of course using the largest angle of separation approach recited in claim 1.

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Claims 13 and 14

Claims 13 and 14 relate to determining if there is any pair of receivers of different sectors which have angles of departure separated by less than a second minimum angle of separation. The Examiner contends that Wong teaches this subject matter. However, Wong is concerned with beam scheduling within a single sector. For example, it can be seen in column 1, lines 8-11 that Wong "relates to forward link beam forming and interference cancellation via a base station adaptive antenna array in order to increase data rate to subscriber units (mobiles) within a service sector [emphasis added] of a wireless communication system". Wong goes on to teach embodiments with implementations specific to a single service sector, but is silent to considering receivers of different sectors.

Claims 18 and 19

Claims 18 and 19 relate to fixed beams which are individually (claim 18) or collectively (claim 19) steerable. Wong teaches away from this subject matter, as the beams shown in Figure 3 of Wong are of variable shape and amplitude. Also, as shown in Figure 7 of Wong, the power or amplitude of the beam is dependent upon the data rate. As noted above, Wong is concerned with determining beam widths. This means that the beams are not of a fixed shape. The Examiner contends that it would have been obvious to modify the beams in Wong to be of fixed shape. However, since the approach in Wong is to determine the shape (e.g. beam width), it is respectfully submitted that such a modification would render Wong unsatisfactory for its intended purpose. Therefore, such modification cannot be considered obvious.

The Examiner is respectfully requested to reconsider and withdraw the rejection of claims 5-7, 11, 13-15, 17, 20-22, 24, 26, 28 and 31 under 35 USC 103(a).

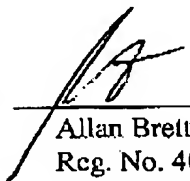
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In view of the foregoing, early favorable consideration of this application is earnestly solicited.

Respectfully submitted,

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RAB:PDB:kbc